REMARKS

Claims 7-10, 15, and 17-19, are all the claims pending in the application. Claims 11-14 and 16 have been canceled without prejudice and/or disclaimer. New claims 17-19 have been added to further define the invention. Reconsideration and allowance of all the claims are respectfully requested in view of the following remarks.

Specification

The Examiner has objected to the title of the invention as not being descriptive, and indicated that a new title is required that clearly is indicative of the invention to which the claims are directed. In response, Applicants have amended the title in a manner believed to overcome the Examiner's objection.

Claim Rejections - 35 U.S.C. § 103

- The Examiner rejected claims 7, 9, and 10, under § 103(a) as being unpatentable over JP 54116610 to Tajima et al. (hereinafter "Tajima") and US Patent 5,325,003 to Saval et al. (hereinafter "Saval"). Applicants respectfully traverse this rejection because the references fail to establish *prima facie* obviousness in that they do not teach or suggest each and every element as set forth in the claims.

Claim 7 sets forth a rotor of a dynamo-electric machine that includes, *inter alia*, a plurality of discrete magnetic portions provided between adjacent ones of triangular magnetic poles of a field core assembly. That is, for example, the present invention includes a plurality of discrete hexahedral magnetic portions 38. Because the magnetic portions are discrete, the remainder of the bobbin can be made of a non-magnetic resin, thereby reducing cost of the rotor.

In contrast to that set forth in claim 7, Tajima discloses a thermosetting adhesive 15 that includes ferrite powder, wherein the adhesive 15 is continuously disposed in the spaces 13, 14 between the hook-shaped poles 4. See Fig. 3. That is, the adhesive 15 is a unitary member of one piece and, therefore, is not a "plurality of discrete magnetic portions". In fact, the Examiner

recognizes that "Tajima teaches a plurality of magnetic portion between the claw poles which are linked on the axial ends to form a single body".[1] And the fact that the magnetic portions are linked by the magnetic single body so that, by definition, the magnetic portions are not discrete.

The Examiner cites Saval as teaching a bobbin with opposing flanges. However, Saval does not teach or suggest a plurality of discrete magnetic portions. In fact, Saval does not disclose the use of magnetic portions between the pole pieces 24, 26 at all. Further, like Tajima, Saval teaches the use of a unitary molded insert 22 made of insulating plastic that fills the region 122 between pole pieces 24, 26.

Further, none of the references teaches or suggests that a plurality of magnetic portions are formed with a resin mixed with ferrite-based iron filings, as set forth in claim 7. Instead, the Examiner notes that Tajima teaches a claw pole rotor including a plurality of magnetic portions formed of adhesive and ferrite powder.[2]

Therefore, *arguendo*, even if one of ordinary skill in the art were to combine Tajima and Saval as suggested by the Examiner, any such combination would still not render Applicants' claim 7 obvious. Accordingly, dependent claims 9 and 10 are likewise not rendered obvious by Tajima in view of Saval.

- The Examiner rejected claims 7-10 and 13-15 under § 103(a) as being unpatentable over JP 612-254,040 to Hotta et al. (hereinafter "Hotta '040") and JP 3-265,450 to Hotta (hereinafter "Hotta '450"). Applicants respectfully traverse this rejection because the references fail to establish *prima facie* obviousness in that they do not teach or suggest every element of the claims as set forth.

Claim 7 sets forth a rotor of a dynamo-electric machine including, *inter alia*, a plurality of discrete magnetic portions that abut at least one of the first flange and the second flange in

[1] Office Action at page 5, 1st full paragraph, lines 4-6.

[2] Office Action at page 3, item 6.

order to join the plurality of magnetic portions to the bobbin, wherein the plurality of magnetic portions are formed with a resin mixed with ferrite-based iron filings. In contrast to that in claim 7, neither Hotta '040 nor Hotta '450 teaches or suggests providing magnetic portions formed with a resin mixed with ferrite-based iron filings.

Accordingly, even if one of ordinary skill in the art were to combine Hotta '040 with Hotta '450, no such combination would render obvious Applicants' claim 7. Likewise, dependent claims 9, 10, and 15, are not rendered obvious by Hotta '040 in view of Hotta '450.

Claim 8 sets forth a rotor of a dynamo-electric machine comprising a rotor coil comprising a bobbin, a field core assembly covering the rotor coil, and a plurality of discrete magnetic portions, wherein the plurality of magnetic portions comprise magnetic members made of a magnetic material, and covers covering the magnetic members, and wherein the covers and the bobbin are made of a same non-magnetic material.

In contrast to that in claim 8, neither Hotta '040 nor Hotta '450—either taken alone or in combination—teaches or suggests a plurality of magnetic portions comprising magnetic members made of a magnetic material, and covers covering the magnetic members, wherein the covers and the bobbin are made of the same non-magnetic material.

For the above reasons, claim 8 is not rendered obvious by Hotta '040 in view of Hotta '450.

- The Examiner rejected claims 11, 12, and 16, under § 103(a) as being unpatentable over Hotta '040 and Hotta '450, and further view of UK Patent 2,074,795 to Burton (hereinafter "Burton"). In as much as the Examiner may now attempt to apply this rejection to claim 7, Applicants respectfully traverse this rejection because the references fail to establish *prima facie* obviousness in that there is no motivation to combine them.

Here, even assuming, for the sake of argument, that each of the references discloses an aspect of Applicants' claimed invention, such is not enough to establish *prima facie* obviousness. Most if not all inventions arise from a combination of old elements. *In re Kotzab*, 55 USPQ2d at

1316 (*citing In re Rouffet*, 149 F.3d 1350, 1357, 47 USPQ2d 1453, 1457 (Fed. Cir. 1998). Thus, every element of a claimed invention may often be found in the prior art. *Id.* But identification in the prior art of each individual part claimed is insufficient to defeat patentability of the whole claimed invention. *Id.* Rather, to establish obviousness based on a combination of the elements disclosed in the prior art, there must be some motivation, suggestion or teaching of the desirability of making the specific combination that was made by the applicant. *In re Kotzab*, 55 USPQ2d at 1316 (*citing In re Dance*, 160 F.3d 1339, 1343, 48 USPQ2d 1635, 1637 (Fed. Cir. 1998); and *In re Gordon*, 733 F.2d 900, 902, 221 USPQ 1125, 1127 (Fed. Cir. 1984)).

In this case, the Examiner asserts that Burton teaches iron filing embedded in plastic to provide a magnetic material in motors and generators.[3] The Examiner goes on to state that it would have been obvious to use iron filing in plastic resin between the claw poles because it is easily molded into the proper shape as shown by Burton.[4] But Burton uses the iron filings embedded in plastic to form the core element 7a on which the windings 7b are held, and the core is a rather simple shape. Burton does not teach the use of such material as a covering between claw poles, or the permanent magnets 6. See Fig. 2, for example. Therefore, it would not have been obvious to use Burton's magnetic plastics material in the manner suggested by the Examiner.

For the above reasons, independent claim 7 is not rendered obvious by Hotta '040 in view of Hotta '450 and Burton. Likewise, the claims dependent therefrom are not rendered obvious by these same references.

- The Examiner rejected claim 11 under § 103(a) as being unpatentable over Tajima and Saval, in further view of Burton. In as much as the Examiner may now attempt to apply this rejection to claim 7, Applicants respectfully traverse this rejection because the references fail to

[3] Office Action at page 6, lines 15-16.

[4] Office Action at page 6, lines 16-19.

establish *prima facie* obviousness in that they do not teach or suggest every element of the claims as set forth.

As noted above, Tajima and Saval do not teach or suggest a plurality of discrete magnetic portions provided between adjacent ones of triangular magnetic poles of a field core assembly. The Examiner cites Burton as teaching a magnetic material in motors is made from resin with iron filings. But Burton does not disclose a plurality of discrete magnetic portions provided between adjacent ones of triangular magnetic poles of a field core assembly. Therefore, *arguendo*, even if one of ordinary skill in the art were to combine Tajima with Saval and Burton as suggested by the Examiner, any such combination would still not render obvious Applicants' claims.

- The Examiner rejected claim 13 under § 103(a) as being unpatentable over Tajima and Saval, in further view to US Patent 5,483,116 to Kusase et al. (hereinafter "Kusase"). Applicants respectfully submit that this rejection is now moot.

Response to Examiner's Comments

The Examiner asserts that Applicant is viewing the references alone rather than as combined teachings of the two disclosures.[5] Further, the Examiner states that one cannot show non-obviousness by attacking the references individually.[6] Applicants recognize this. However, the Examiner has misread Applicants' arguments. Instead of that noted by the Examiner, Applicants arguments follow the general pattern that: Reference A does not teach or suggest a specific element as claimed; Reference B also does not teach or suggest that same feature; therefore, no matter how the Examiner chooses to combine the teachings of Reference A and reference B, any such combination cannot teach or suggest the noted feature. Such an argument does not amount to attacking the references individually.

[5] Office Action at pages 5-7, section entitled Response to Arguments.

[6] *Id.*

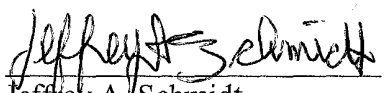
Conclusion

New claims 17-19 have been added to further define the invention. New claims 17-19 depend from claim 8 and, therefore, should be allowable at least for the same reasons as set forth above with respect to claim 8.

In view of the above, reconsideration and allowance of this application are now believed to be in order, and such actions are hereby solicited. If any points remain in issue which the Examiner feels may be best resolved through a personal or telephone interview, the Examiner is kindly requested to contact the undersigned at the telephone number listed below.

Applicants hereby petition for any extension of time which may be required to maintain the pendency of this case, and any required fee, except for the Issue Fee, for such extension is to be charged to Deposit Account No. 19-4880.

Respectfully submitted,



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APPENDIX

VERSION WITH MARKINGS TO SHOW CHANGES MADE

IN THE TITLE:

The title has been changed as follows:

LUNDELL ROTOR [FOR DYNAMO-ELECTRIC MACHINE] WITH MAGNETIC PORTIONS BETWEEN THE CLAW POLES AND SECURED TO A BOBBIN

IN THE CLAIMS:

Claims 11-14 and 16 have been canceled.

The claims have been amended as follows:

7. (Amended) A rotor of a dynamo-electric machine, said rotor comprising:

a rotor coil comprising a bobbin having a first flange and a second flange opposed to each other, and a conductor wound around said bobbin, wherein current flows through said conductor to generate magnetic flux;

a field core assembly covering said rotor coil, said field core assembly comprising a first field core member and a second field core member respectively having triangular magnetic poles alternately meshed with each other; and

a plurality of discrete magnetic portions provided between adjacent ones of said triangular magnetic poles in an orientation that reduces the leakage of magnetic flux between said triangular magnetic poles, and wherein said plurality of magnetic portions abut at least one of said first flange and said second flange in order to join said plurality of magnetic portions to said bobbin, wherein said plurality of magnetic portions are formed with a resin mixed with ferrite-based iron filings.

8. (Amended) A rotor of a dynamo-electric machine [as claimed in Claim 7] , said rotor comprising:

a rotor coil comprising a bobbin having a first flange and a second flange opposed to each other, and a conductor wound around said bobbin, wherein current flows through said conductor to generate magnetic flux;

a field core assembly covering said rotor coil, said field core assembly comprising a first field core member and a second field core member respectively having triangular magnetic poles alternately meshed with each other; and

a plurality of discrete magnetic portions provided between adjacent ones of said triangular magnetic poles in an orientation that reduces the leakage of magnetic flux between said triangular magnetic poles, and wherein said plurality of magnetic portions abut at least one of said first flange and said second flange in order to join said plurality of magnetic portions to said bobbin,

wherein said plurality of magnetic portions comprise magnetic members made of a magnetic material, and covers covering said magnetic members, and wherein said covers and said bobbin are made of a same non-magnetic resin material.

Claims 17-19 have been added as new claims.